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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,238	12/28/2001	Duane D. Grosskrueger	41992-00526	3421

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EXAMINER

WARREN, DAVID S

ART UNIT PAPER NUMBER

2837

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,238

Applicant(s)

GROSSKRUEGER ET AL.

Examiner

David S. Warren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-32 contain (or depend from a claim that contains) the trademark/trade name Teflon™. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe polytetrafluoroethylene (PTFE) and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by McCutcheon et al. (5691037). McCutcheon shows the use of a plurality of standoffs (13, 15) and fasteners (11) collocated with apertures in the perimeter of blanket (figs. 1 and 2). The standoffs pass through the apertures. The fasteners are connected to the individual

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standoffs to secure the blanket to the plurality of standoffs. The applicant's method is inherent in the structure of McCutcheon.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1- 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. ('178) in view of O'Neill ('112), Landi et al. ('567), and McCutcheon et al. ('037). The patent to Nelson et al. shows the use of an acoustic insulator between two heat-sealed outer covers. Nelson does not show the use of a PTFE-impregnated fiberglass outer cover layer nor of a polyimide foam inner layer. These materials are both well known in the acoustic insulation art and are shown by Landi and O'Neill, respectively. Nor does Nelson teach the use of a threaded fastening means to "control" the dimension of an air gap between the acoustic insulation and a supporting structure. McCutcheon shows a threaded fastening means to hold a vibration damping layer ("vibration" also includes acoustic vibrations) to a supporting structure. Since the impregnated fiberglass and polyimide layers are well known in the acoustic insulation arts, it would have been obvious to one of ordinary skill in the art to include the teachings of Landi and O'Neill to the Nelson reference to obtain an acoustic blanket suitable for use in a payload fairing. Furthermore, air spaces are commonly used to enhance sound attenuation. Air gap dimensions are chosen ("controlled") to optimize

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attenuation at a desired frequency. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Nelson with those of McCutcheon, O'Neill, and Landi. The motivation to make these combinations is found in Nelson who selects an outer layer to minimize reactivity (PTFE is virtually chemically inert). The motivation for adding polyimide foam can be found in the O'Neill patent. O'Neill shows that polyimide film is stable at high temperatures, has good sound attenuation properties, and can be easily attached to other material layers. One of ordinary skill in payload design would certainly consider the teachings of O'Neill. Regarding claims 5-8, 17, 24, 25, 31, and 32, O'Neill shows the use of plural polyimide foam layers (3), Nelson shows the use of one barrier layer (44), McCutcheon shows the use of butyl and silicone rubber layers (col. 11, first paragraph) and Landi discloses PTFE-impregnated fiberglass. Regarding claims 3, 13, 22, and 30, Nelson shows the use of a vent (45). Regarding claims 4, 14, and 23, Nelson discloses using the same material as a vent material (col. 6, paragraph 5, and fig. 4). Thus, one of ordinary skill would consider using PTFE for the vent material in view of the combined references discussed above. The use of stainless steel is considered to be mere design choice. Regarding claims 9, 10, 18, 19, 26, 27, and 29, McCutcheon shows the use of grommets (raised protrusions 431, 195, 201, 215, etc.). Regarding claim 11, the weight per square foot is the result of choosing (by one of ordinary skill in the art) the materials to obtain the desired acoustic and/or vibrational parameters, i.e., a design choice. Furthermore, the applicant's specification is silent as to the criticality of the blanket's weight per square foot. The applicant's method claims 28 – 32 are inherent in the structure discussed above (claim

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numbers 28-32 are discussed above). It would have been obvious to one of ordinary skill in the art to combine the teachings of Nelson, McCutcheon, Landi, and O'Neill to obtain the acoustical blanket with impregnated fiberglass and polyimide foam "controllable" mounted on a support structure. The motivation for making these combinations, as discussed supra, is found in both the O'Neill and Nelson teachings. Nelson chooses a chemically inert material (as does applicant) while O'Neill chooses polyimide foam to be stable at high temperatures and to easily attach to other materials while having good sound attenuating properties. McCutcheon mounts a "blanket" creating an air gap with standoffs that will "prevent slumping" – just as the applicant seeks to accomplish.

Conclusion


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Fuchs (5700527) shows that the spacing between a "structure" and an acoustic attenuator may be "controlled" for optimum attenuation. The patent to Campbell (5824974) shows the use of grommets in acoustic panels. The patent to Holwerda (5557078) shows the use of vents in acoustic barriers. The patent to Wenger (3221835) shows the use of an adjustable dimension between an sound insulator and a support structure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 703-308-5234. The examiner can normally be reached on M-F, 9 A.M. to 5:30 P.M..

8: If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on 703-308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

dsw
January 17, 2003


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